

Massachusetts Department of Public Health's

Health Care Workforce Center



Report: Health Care Workforce Assessment and Planning Efforts in Ten States

Prepared by:

The Primary Care Office, Massachusetts Department of Public Health
The MassAHEC Network, Commonwealth Medicine, University of Massachusetts Medical School
2008



Executive Summary:

In 2008, the Massachusetts General Court created a Health Care Workforce Center in the Department of Public Health charged with improving access to health care services. This charge is timely; as the Commonwealth achieves universal insurance coverage for the residents of the Commonwealth, the challenge of access to healthcare services, particularly primary care, has increased. The University of Massachusetts Medical School's MassAHEC Network and the Department of Public Health's Primary Care Office had anticipated this concern and in 2006 began to work together, systematically and strategically, on workforce assessment issues, including a review conducted in 2007 of the workforce planning efforts in other states.

Below are five recommendations, gleaned from the experience of ten states described within this report, which can guide the efforts of the Health Care Workforce Center as it responds to legislative intent.

1. Develop comprehensive health workforce data collection and analysis systems to inform supply and demand, decision-making and policy development, and the deployment of recruitment and retention resources.

- Continue to collaborate with the University of Massachusetts Medical School and solidify partnerships with state Boards of Registration and Licensure for health care professionals, Massachusetts League of Community Health Centers, Massachusetts Hospital Association and other provider organizations; Massachusetts Medical Society and other membership organizations; to create and maintain a shared, comprehensive workforce database of longitudinal descriptive and quantitative data
- Integrate data collection with health professional licensure and re-licensure.
- Create relationships with relevant state entities: Department of Elementary and Secondary Education, Board of Higher Education, Department of Labor and Workforce Development, and departments/programs within the Executive Office of Health and Human Services that address health care workforce issues.

The states presented here share a commitment to maintaining comprehensive health workforce data. Even states with well defined data systems cite a need for improvement. The most successful data systems often have a collaborative relationship with their respective state licensing agency to maintain current data. Most states employ extensive surveying of many health professional occupations in an effort to accrue accurate, reliable data. Essentially, data is key to effective health workforce planning and development.

2. Create, increase and maintain state funding for health professional training and recruitment and retention incentives with the flexibility to respond to the varying needs and shifting priorities across the Commonwealth, and maximize federal resources.

- Maximize federal funding tied to shortage designations (Health Professional Shortage Areas and Medically Underserved Areas/Populations) by ensuring all possible areas and sites have been designated.
- Increase coordination and communication between agencies and programs administering state and federal funded programs.
- Increase funding commitment to state loan repayment programs and expansion of these programs.
- Investigate retention programs such as tax credits, malpractice insurance premium subsidies, new practice assistance programs, and housing and mortgage subsidies.
- Encourage and fund training programs and clinical rotations for health professions students in underserved communities.

- Support health workforce pipeline programs.
- Partner with training programs to disseminate information about recruitment incentives to future health professionals.
- Create comprehensive tracking systems of State Loan Repayment and J-1 Visa Waiver participants for assessing retention.

Where federal funding for recruitment and retention programs has waned, state boards, commissions, and other partnerships have filled the need for adequate monies. For example, in some states, tax incentives, and low rate mortgages have been made available for physicians working in rural areas. Furthermore states committed a significant amount of funding to loan repayment programs and coordinated efforts with private entities to create additional funds for the recruitment of a variety of healthcare professionals.

3. Develop state specific designations for primary care underserved areas to more accurately address the unique health care needs of Commonwealth communities.

- Analyze available data sets like MassHealth utilization and MassCHIP, to compare thresholds across all communities and determine levels of under-service, and establish priorities for health care professional deployment.
- Map data components like traffic patterns, demographics, levels of rurality, and locations of health care facilities to enhance analysis capabilities.
- Create a collaborative process with existing providers to determine current and future capacity and needs, and shared, coordinated response strategies.

States exhibiting difficulty in qualifying for comprehensive federal aid or wish to lessen dependency on federal aid created unique solutions to evaluating levels of need. Such efforts have prompted a mixture of public and private funding for unique solutions to alleviating shortages and increasing the availability of services.

4. Develop strong and flexible inter-state agency and public-private partnerships dedicated to health workforce planning. Develop an Advisory Board of key stakeholders to facilitate collaboration, communication and direction.

- Streamline and better coordinate the various workforce development and assessment efforts.
- Support efforts with data, research, technical assistance, and consultation.
- Provide best practice guidance and assist with recruitment efforts, particularly to attract out-of-state health professionals interested in employment within Massachusetts communities.

With vested interest from legislative bodies and/or academic institutions, many states develop creative and substantive ways to tackle the broad spectrum of health workforce issues. A wider scope of programs devoted to health workforce planning and evaluation is achieved by the efficient facilitation and coordination of workforce activities, including the delegation of responsibilities to key partners by one central body.

5. Summarize and disseminate workforce assessment and need materials

- Periodically publish state health workforce development and trend reports.
- Develop a comprehensive health workforce website to include data and maps, training and education tools, legislative updates, funding opportunities, recruitment and retention incentives, and job opportunities.
- Utilize workforce assessment efforts and identified workforce shortages to inform health workforce pipeline programs.

A common theme among the observed states was the creation of healthcare workforce clearinghouses, an accomplishment of the coordination and cooperation of multiple public and private entities. These

state clearinghouses present comprehensive websites with easily accessible data and informational recruitment and retention tools.

Introduction

Nationally the health care climate is a volatile landscape of rising costs, increasing numbers of uninsured and under-insured populations, and an increasing prevalence of health disparities. Current and projected health workforce shortages across many different disciplines significantly contribute to this instability. With an aging baby boom generation, the already limited availability of health care resources coupled with a health care workforce that is aging and approaching retirement, shortages may reach a critical stage in the near future.

Health care workforce shortages are well documented in the media, in academic discussions and reflected in public policy initiatives. The attention to the breadth and depth of the workforce challenge has focused on solutions such as training more clinicians by expanding educational programs, class size, tuition support and other recruitment incentives. In addition, national and state policymakers have pursued a number of different avenues in an attempt to alleviate the effect of current and projected declines in provider supply. Attention has also focused on attracting new and retaining current health care workers, re-training workers who have left the field, encouraging career development, and measuring the impact of these efforts.

Within this climate, Massachusetts is repeatedly ranked among the top ten nationally in numbers of nurses, and dentists and first in numbers of physicians for the population served. As a result the state is often characterized as having a robust health care workforce, a seeming wealth of services for all its residents. Yet upon further examination this picture begins to change.

For Commonwealth residents a stark contrast between available resources and health professional accessibility emerges. For example, while Massachusetts may have the highest number of physicians per capita studies show a declining rate (42%) of a patient's ability to see a primary care services within a week¹. Hospitals and physician practices likewise report problems in recruiting and retaining primary care physicians². This statistic is particularly troubling as primary care is often considered the point of entry for many into the health care system. Massachusetts' recent health reform activities, a mandate for all residents to secure health insurance, only exacerbates the lack of primary care resources further by increasing the demand for these services. Additionally, the lack of current and comprehensive provider data undermines any attempt to accurately forecast provider supply, a hindrance to comprehensive health planning. An important question for Massachusetts remains: who and where is our health care workforce?

In 2008, the Massachusetts General Court outlined a response to this question with the creation of the Massachusetts Health Care Workforce Center, housed in the Department of Public Health. Two years earlier, the Massachusetts Department of Public Health's Primary Care Office and the MassAHEC Network, a program of the University of Massachusetts Medical School's Commonwealth Medicine division, and Massachusetts Department of Public Health's Primary Care Office sought to identify promising practices and practical recommendations for addressing health workforce shortages. As the scope of workforce development can be overwhelming, the focus was placed on efforts conducted by state Primary Care Offices and related academic and public policy endeavors. Descriptive demographic data for each state was researched to include current patterns and

¹ The United States Health Workforce Profile, October 2006. The New York Center for Health Workforce Studies. Accessed July 10, 2008.

² Testimony "Health care Workforce Shortages for the Future and Title VII Reauthorization". Senate Health Education Welfare and Pensions Committee. Bruce Auberbach, MD. Massachusetts Medical Society. February 12, 2008

future trends in both health professions and the general population, and to provide an overall picture of each state's health care landscape, or the internal and external factors affecting health workforce development. Interviews with health workforce professionals in each state provided information on data and needs assessment, policy and planning, health professional shortage areas, recruitment and retention programs, current legislative environment, and a future wish list ; most of which is presented in the following report.

Ten states were selected for their innovations and approach in health care workforce assessment and planning. Key personnel from each state in the areas of public and community health, and state Primary Care Offices were interviewed about workforce initiatives, particularly their use of incentive programs and best practices in identifying areas of need for health professionals. Follow-up interviews were conducted to explore particular programs or issues more in -depth.

- California
- Maryland
- Minnesota
- New York
- New Jersey
- New Hampshire
- North Carolina
- Oregon
- Pennsylvania
- Texas

These states were seen as similar to Massachusetts as most receive federal State Loan Repayment Program funds, have large and growing immigrant populations, a significant aging population, average or above average reported amounts of health professionals of various disciplines yet shortages persist, and are generally considered rich in economic resources.

Summarized here are current and future state demographics, data and needs assessment, policy and planning, health professional shortage areas, recruitment and retention programs, state government, and legislative environment.

CALIFORNIA STATE PROFILE

California, the largest U.S. state with a population of 36.4 million people, is also one of the fastest growing. Immigrants come from Mexico, Central America, Southeast Asia (Hmong and Laos), Ethiopia, and other African states. The impact of this influx is felt in the health care sector, and requires an extensive need for culturally competent health professionals. Although California has a very diverse population (half are minorities); the healthcare workforce does not represent this diversity.

There is no central mechanism for data collection. Data about health professionals is collected from several different licensing entities. Billing data is analyzed and disseminated by the Office of Statewide Health Planning and Development (OSHP) to forecast mental health professional supply. County mental health departments are able to use this data to apply for funding, but no equivalent forecasting for dental or primary care professions currently exists. Legislation (Senate Bill 139) passed into law in 2007 attempts to remedy this by creating a Healthcare Workforce Clearinghouse to coordinate re-licensure linked surveys for many different health professions. Information from these surveys provides data summaries for each health profession as well as identifying shortages. The creation of the Healthcare Workforce Clearinghouse requires the cooperation of several state agencies including those overseeing labor market studies.

The California Center for the Health Professions, University of California at San Francisco hosts two workforce assessment programs. The Center for Health Workforce Studies supports four focus areas: medicine, nursing, oral health, and public health for studies about supply and demand as well as diversity and evaluation. Each area includes extensive surveying of related health professions thereby informing an array of extensive publications. The Health Workforce Tracking Collaborative was established to track the progress of programs designed to address/evaluate nursing and allied health shortages, racial and ethnic diversity of the health professions, primary care definition and access, and health professional work and economic development and their impact on critical health care challenges.

Due to the expansiveness of California counties OSHPD created a 'rational service area' scheme of 571 Medical Service Study Areas (MSSA), a smaller unit of analysis to better determine shortages and allocate resources. This process is comprehensive at the local level and is updated every decade. Data from Medical Service Study Areas rank need based on population-to-provider ratios.

The OSHPD also administers the state loan repayment program under a grant from the Bureau of Health Professions. Health professionals are eligible for award amounts of \$50,000 for first two years and \$35,000 for the third and fourth years. All participating employment sites are certified by the State Loan Repayment Program/OSHP and must agree to match half of the loan repayment award. The Song-Brown program, a separate loan repayment program, supports family practice, family nurse practitioner, and physician assistants. Funds for California loan repayment programs total about \$2.5 million. Other health professional support programs are funded through license renewal surcharges. These programs include: Mental Health Practitioner Education Fund, Vocational Nurse Education Fund, Vocational Nurse Education Fund, and Health Professions Education Fund.

MARYLAND STATE PROFILE

Maryland ranks 42nd among the states in landmass and 19th in population (5.5 million). The total population is projected to grow 14% between 2000 and 2020, while the population 65 and over is projected to grow 47% between that time. Maryland is a state experiencing significant increases in minority and immigrant populations and a greater demand for a culturally competent workforce. There is also a demand for safety net providers for the medically uninsured population.

The Maryland Primary Care Office (PCO) maintains a health workforce database inclusive of physicians, dentists, and mental health professionals to help assist with Health Professional Shortage Area (HPSA) and Medically Underserved Areas (MUA) designations. Medical and dental licensing boards provide the information for these databases. Information generated from the health workforce database is disseminated through PCO partners and used to compile reports and to inform public policy. The number of actual health professionals supported through federal and state programs is used as a baseline to inform shortage designations and to make recommendations for policy development. A long range healthcare workforce plan does not exist for the state.

The major constraint of the health professional shortage designation process is the inability to get provider information and practice details. These licensing boards are often hesitant to share information based on concerns related to confidentiality. The licensing boards also classify information only by zip code making the federal designation process requirements more difficult to meet. The state has used the homeless as a special population to designate certain areas. Dental and mental health designations are used for recruiting of providers (i.e. willing to accept Medicaid, Medicare).

The Primary Care Office partners with the Primary Care Association, the AHEC, and the Higher Education Commission. The PCO provides leadership and routine meetings regularly with partners. Representation from academic institutions is limited.

For state loan repayment Maryland provides a 1:1 match with federal funds. The Maryland Higher Education Commission (MHEC) supports the Workforce Shortage Student Assistance Grant Program which includes funds (max. per student of \$18,300) for nursing and the Loan Assistance Repayment Program, Primary Care Services which provides loan repayment between \$25,000 - \$30,000 per year for physicians practicing primary care in underserved population or a maximum amount of \$25,000 per year for medical residents providing primary care to underserved populations. Awards do not exceed \$120,000 and are contingent upon state funds availability.

In Maryland innovative ideas in recent legislation include: a pilot project for cultural competency training for community-based physicians providing preventive care, an Advisory Council on Workforce Shortage to streamline and better coordinate existing efforts, and the creation of a subsidy for medical malpractice insurance to lower the associated financial burden of high medical malpractice insurance rates, often a deterrent to physicians choosing a practice in Maryland.

MINNESOTA STATE PROFILE

In the 1990s, Minnesota's immigrant population doubled. The fastest growing immigrant populations were Mexicans, Somalis, Hmong, and Africans. Refugees from Africa and Southeast Asia pose a particular challenge to the health care workforce as they typically have extensive health problems including serious dental problems, HIV, and STDs, and are generally uninsured. A shortage of culturally competent providers with the necessary language skills to treat these immigrant groups exists.

Minnesota maintains data on most of the health care workforce through an on-line surveying technique. On-line licensing sites are linked to a Public Health Department site where a request to complete a survey is prompted. Although the surveys are voluntary, the return rate is very high at over 80%. The data from these surveys effectively provides statistics for forecasting healthcare provider supply.

In recent years, Minnesota increased efforts to track changes in the health workforce climate. These efforts included the following: workforce profiles developed by the Office of Rural Health and Primary Care documenting changes in the supply and demand for physicians, nurses, dentists, pharmacists and other health professionals across Minnesota; and statewide job openings by various health occupations produced by the Minnesota Department of Economic Security in partnership with the state colleges and universities. Additionally, the Minnesota Center for Rural Health conducted statewide rural and underserved health workforce assessments to track the number of recruited health professionals and the amount of time and resources used for such recruitment activities. The Rural Health Resource Center performs annual survey of selected health professions under the aegis of the Office of Rural Health and Primary Care. This health workforce demand assessment uncovers shortages throughout the state. Minnesota also completed an evaluation of the State Loan Repayment by surveying past and present participants with an aim to more effectively allocate resources and retain participants.

For shortage designations Minnesota created a 'rational service area' plan as part of its health professional shortage area (HPSA) designation process for adult mental health services resulting in eleven mental health planning regions. The success of this planning effort resulted in over half of the total National Health Service Corps (NHSC) placements extending to mental health care. Overall the designation process is cumbersome and expensive, yet at one time Minnesota achieved designations for 70 of 87 counties. That number has since dropped to 47.

Although there is no overarching governing or oversight bodies, there are strong collaborative relationships among the agencies and organizations dealing with health workforce issues. Partnering with the Department of Health are the Rural Health Resource Center and the Center for Rural Health. The active relationship between state agencies and the AHEC have resulted in a strong rural medicine program and specialized curriculum for rural health.

NEW HAMPSHIRE STATE PROFILE

New Hampshire is a state of 1.2 million people, 38% of whom live in non-metropolitan areas – NH ranks 11th in the country for percentage of populations living in rural areas. Only 6% of the New Hampshire populations are minorities. Through refugee resettlement programs, New Hampshire has experienced a growth in immigration for which it is ill-prepared, with immigrants arriving from Latin American and Eastern Europe.

The Health Planning and Research Unit (HPR) of the New Hampshire Department of Health and Human Services (NHDHHS) uses data produced by other organizations such as other state government agencies, federal agencies, or national organizations. HPR creates regional health profiles, and population survey data for health insurance and health care access. The New Hampshire Institute for Health Policy and Practice, a formal partnership between the Department of Health and Human Services and the University of New Hampshire, maintains the Health Data Inventory first developed in 2000. The Health Data Inventory contains all health data sources and reports. It is not a warehouse of raw data, but rather contains information about supply, demand, distribution, education, and utilization of physicians, nurses, dentists, and twenty other health professionals. A significant source of workforce data is also provided to the state agencies via the Bi-State Primary Care Association Recruitment Center for Vermont and New Hampshire. The data indicates where and what kind of shortages exist by region.

New Hampshire uses HPSA designations to assist in determining health workforce resource needs. Renewal requests are performed by the Primary Care Office; however a private firm, John Snow, Incorporated (JSI), is contracted to generate new requests. The state uses primary care, as well as dental and mental health HPSAs to target loan repayment funds.

New Hampshire has a small loan repayment program with a small state match of \$110,000. A program managed by Dartmouth-Hitchcock Medical Center provides rural scholarships at the Dartmouth Medical School. There is a strong collaboration between NHDHHS and the New Hampshire Higher Education Assistance Foundation to make loan repayment provisions for health professionals. Medicaid has paid for the cost of recruitment for areas where significant shortages (e.g. no pediatric dentists) are identified.

NEW JERSEY STATE PROFILE

New Jersey is the most densely populated state with the entire state population (8.7 million) classified as living in metropolitan areas. The total population of the state is projected to grow 10% between 2000 and 2020; the population 65 and older is projected to grow 29%.

Data collection for the state is identified as weak. The Department of Health provides leadership for health professions workforce issues. There is no formal workforce database; primary record keeping is through the licensing boards. The Primary Care Office works with the Department of Health and the Department of Labor and Workforce Development in addition to the medical schools and the Primary Care Association (PCA). Rutgers University houses the Center for Health Care Policy that conducts a physician survey every five years, but the scope of the survey is limited.

The New Jersey Health Workforce Plan originates in the Department of Labor and Workforce Development. Each county has a workforce center, but these are more focused on laboratory personnel than health professionals. According to the PCO, because of the small size of the state and its infrastructure, health workforce shortages are often recognized early and successful attempts are made to fill vacant slots.

Health Enterprise Zones are developed by towns and must be passed as a town resolution. These zones enable physicians to get a tax break (an established percentage) for practicing in underserved areas (as established by Federal or state underserved index/designation). Workforce Investment Boards do not have a strong planning role in local health care workforce development.

As opposed to federally designated shortage areas, the State of New Jersey developed a unique index of medical scarcity of primary care need, independent of federal determinations. The State of New Jersey designates underserved communities with the poorest health status and economic indicators. Determinations of underservice rankings, according to severity, are made by the staff of the Office of Primary Care and are ultimately approved by the Commissioner of Health and Senior Services. These state-designated areas of medical need are used to place primary care physicians, dentists, certified nurse midwives and physician assistants participating in New Jersey's state supported Primary Care Loan Redemption Program. Office of Primary Care staff annually updates New Jersey's Medically Underserved Index.

Of the few HPSA designations in New Jersey most are comprehensive health centers and federally qualified health centers (FQHCs). Thus, the Primary Care Loan Redemption Program (LRP) of New Jersey is a prominent initiative designed to ease the shortage or increase the availability of primary care clinicians practicing in medically underserved communities. Under the LRP, certain clinicians (physicians, physician assistants, nurse practitioners and certified nurse midwives) specializing in primary care disciplines and dentists specializing in general dentistry or pedodontics (pediatric dentistry) are eligible to redeem up to \$120,000 over a four-year period for loans used to finance their medical/dental education.

NEW YORK STATE PROFILE

Ranked third in population in the United States, New York is losing many of its younger residents particularly from upstate and more rural areas, and gaining more immigrant and minority populations. Adequate distribution of health professionals continues to be deficient in both urban and rural areas. However in terms of supply New York is among the top with high rates of physicians, registered nurses, physician assistants, dentists, and psychiatrists.

The Center for Health Workforce Studies at the State University of New York (SUNY) in Albany is a non-profit research organization that conducts studies of the supply, demand, use, and education of the health workforce. As one of six regional, formerly HRSA funded workforce centers, the center collects and analyzes data to understand workforce dynamics and trends, and inform public policy, health and education sectors, and the public. Data is collected from the New York Departments of Health, Education, and Labor, and is updated either annually or biannually. The Center supplements data from the state licensing boards and recently conducted a physician survey, which generated an 85% response rate. Available online, the data facilitates federal designations and is used to prepare reports for the state legislature and other interested entities.

A Workforce Development Unit is located in the Division of Planning, Policy, and Resource Development at the New York State Department of Health. The unit uses strong ties with related organizations and external partners throughout the state to carry out specific programs and address workforce issues. The state medical board, medical societies, association of medical schools, and the hospital association all collaborate on health planning and policy development. The AHEC system is very involved in workforce development and collaboration with state offices is increasing.

New York State Regents Physician Loan Forgiveness Award is based on undergraduate and medical school student loan amounts, loan interest expense, and income. State financial support typically amounts to \$800,000 annually for this program. Pending the appropriation of State funds during the yearly session of the New York State legislature, at least 80 awards up to \$10,000 per year for two years are offered. Award recipients must agree to practice medicine in a specific area in New York State or serve a specific underserved population designated by the New York State Board of Regents as having a shortage of physicians for a period of 12 months. Recipients must serve a minimum of 24 months regardless of the amount of payment received. The state also mandates that health professionals entering the state who are not permanent residents or US citizens must work in an underserved area. In addition, foreign-born physicians and dentists must serve in underserved areas while pursuing citizenship.

Overall cooperation exists among the various state governmental offices to address health workforce issues. The Departments of Health, Education, and Labor work cooperatively together as well as with the Center for Health Workforce Studies to address workforce issues. These entities acknowledge the importance of workforce development especially in primary care.

NORTH CAROLINA STATE PROFILE

North Carolina's population of 8.5 million is changing due to a significant rise in the Latino population and other immigrant populations residing in the state either full-time or seasonally. There is also an increasing population of retirees. The workforce must adapt for these two rapidly changing populations.

The University of North Carolina Chapel Hill's Cecil G. Sheps Center maintains an extensive network of databases and works cooperatively in the state and region to assist in data collection efforts on health professionals. Information has been collected for many years and trend data is available and used extensively. The health workforce database at the Sheps Center is a collaborative effort with the NC AHEC program. The Sheps Center also maintains most workforce studies, and many reports are updated annually. The Center recently developed a Safety Net Task Force to critically examine the needs of this specific population.

North Carolina has a long-established and integrated policy and planning system within the state. The University of North Carolina (UNC), through its Academic Planning Division, is an integral partner in workforce planning for the state. The UNC Academic Planning Division conducts workforce studies that gather and organize data to support planning, assessment, and program development. The NC AHEC and the Office of Rural Health provide the most direct leadership for workforce development in the state.

The Primary Care Office is charged with HPSA application development. There are 23 full county and 36 partial county HPSA designations located mostly along the shoreline and western mountains. There is a great need for mental and dental health shortage designations. Provider sites currently receive additional state money for hiring mental health staff in areas of greatest need (as determined/verified by state data).

North Carolina provides matching state funds for National Health Service Corps (NHSC). The J-1 Visa/Conrad 30 programs have garnered little interest since the state requires that physicians have a letter of support from their respective consulate/embassy, a difficult to obtain requirement. North Carolina has made the effort to have other sources of financial support available so as not to have to rely solely on federal programs. The North Carolina Medical Society, KB Reynolds Health Care Trust, Duke Endowment, and UNC programs provide additional funds for loan repayment. In addition, local community development efforts are successful in recruiting and retaining health professionals as state funds often favorably match local efforts (i.e. capital development for non-profit entities). To further enhance recruitment efforts the state obtained lower-than-prime interest rate mortgages for the relocation of providers.

OREGON STATE PROFILE

Oregon is a fast growing state of 3.6 million, yet the proportion of aging baby boomers is projected to grow by 105% by 2020 while the state as a whole will grow by 22%. Over 20% of Oregon's population lives in rural areas; there are seven counties that are classified as a "frontier" area with less than 11 people per square mile. There are only three major urban areas.

Pursuant to a legislative mandate, a comprehensive regional and statewide needs assessment of the health care workforce was completed in 2005 by Worksource Oregon, the state employment department. Completed in 2006, the assessment, covering 63 health care occupations, projected future growth/demand, assessed shortages against the educational pipeline, and identified emerging health occupations. Seventeen health occupations were projected to experience shortages according to this report. The assessment also evaluated whether the shortages are the result of increasing demand, a scarcity of educational programs, or retention issues.

The Oregon Department of Health has made extensive use of surge capacity data collected for emergency preparedness programs in its workforce planning efforts. Medicaid is another primary data source used for the purpose of policy and decision-making support and research.

The Oregon Healthcare Workforce Institute is a newly created partnership between the public and private sectors. The Institute addresses the shortages of health care workers in the state and seeks to develop a coordinated statewide response to critical workforce needs and to ensure that Oregon has a highly competent and diverse health care workforce. Funding is provided in part by two healthcare systems and the Oregon Workforce Investment Board. The Board includes representatives from the health care systems, hospitals, unions, academia, state government agencies, and the Governor's office. This body will act as the locus for policy development and recommendations with regard to health workforce issues.

Most data for HPSA designations results from an extensive survey process; physicians and dentists are surveyed every two years. Surveys are voluntary and completed via an online system at the time of license renewal. A Governor's shortage designation was used for the seven counties qualifying as frontier areas. The Health Indicators Project, measures of unmet healthcare needs, helps to further define shortages.

The Oregon Rural Health Loan Repayment Program supports physicians, nurse practitioners, physician's assistants and pharmacists. There are \$400,000 in federal funds and \$1 million in state appropriations for loan repayment. Oregon's rural practitioner state income tax credit grants up to \$5,000 in personal income tax credits to eligible rural physicians, osteopaths, podiatrists, nurse practitioners, physician assistants, and certified registered nurse anesthetists as well as to dentists and optometrists who practice in frontier areas. The Office of Rural Health at Oregon Health Sciences University is charged with administering this program. The Rural Medical Liability Financial Reinsurance Plan (RMLFRP) is a subsidy of physician malpractice premiums for rural physicians supported by the state, with additional subsidies for providing maternity care services.

While legislation has been an important force in progress and innovation to health workforce policy, state officials still cite a need for a forum to bring essential key players together to discuss health workforce issues.

PENNSYLVANIA STATE PROFILE

Pennsylvania is the 6th largest state with 12.1 million people and is a combination of inner city , with 6 major urban areas, and extensive rural areas. About 1,175,000 people in Pennsylvania are immigrants or the children of immigrants who comprise nearly ten percent of the state's population. The Hispanic population in Pennsylvania grew twofold between 1990 and 2004, from 232,262 to 475,552.

In response to concerns regarding the lack of objective data for demographic, educational, employment, and other characteristics of various health care professionals working in Pennsylvania, the Department of Health, with the assistance of the Department of State initiated an online surveying system of various licensed health professions at the time of license renewal. There is a 99% response rate. The Bureau of Health Planning also uses data from in-house databases of longitudinal data; surveys (J1 Visa Waiver & state loan repayment participant surveys, workforce surveys, partnership surveys), state demographics, health status, and behavioral risk data, as well as data from national trade associations. Data is used to allocate resources, maintain accountability, and to measure and report outcomes. Reports are generated for grantees, federal shortage designation applications , determine primary care physician supply, and the State Health Improvement Plan to project health workforce needs.

The Pennsylvania loan repayment program is administered jointly with the Pennsylvania Higher Education Assistance Agency and provides payments of educational loan obligations based on the length of time the practitioner practices in a Health Professional Shortage Area. A triple penalty is assessed if the agreement is breached. Payments increase based upon the length of practice in the area. Awards of up to \$64,000 are made to physicians and up to \$40,000 for dentists. Certified registered nurse practitioners, physician assistants, and certified nurse midwives are also supported. In this program 78% of recipients stay in the state for at least a year after the end of the contract and 58% remain at the original site. The J-1 Visa Waiver program tracks physicians over time. Over 58% have stayed in PA for at least a year after the term; 35% have stayed at the original site. The National Interest Waiver program is available for primary care physicians to gain quicker access to permanent residency status provided the physician agrees to complete an additional 2 -year commitment in an underserved area after completion of the 3 -year J-1 Visa Waiver commitment.

Applications for federal health professional shortage area (HPSA) designations are generated at the community level and may be submitted by anyone. The Bureau of Health Planning provides data and technical assistance. Through these local process communities, organizations and key stakeholders are made aware of the federal and state benefits available from a shortage designation. HPSAs are used to determine the location and extent of primary care physician shortages. Mental health designations primarily identify state prison sites. Dental services have been increased in HPSAs through the community challenge grants.

The Pennsylvania Center for Health Careers , an initiative of the Pennsylvania Workforce Investment Board, serves as a catalyst to develop action-oriented strategies to address Pennsylvania's short and long-term health care workforce challenges. Key challenges include: increasing the capacity of Pennsylvania's nursing education system; retaining health care workers in health care professions; responding to the demand for critical allied health professionals; and addressing the needs of direct

care workers. Overall Pennsylvania enjoys a high degree of collaboration on workforce policy from both inside and outside of state government.

TEXAS STATE PROFILE

The largest of the 48 contiguous states, Texas is characterized by a significant immigrant presence where nearly one-third of that population is Hispanic, primarily of Mexican origin. The immigrant population increases by approximately 600,000 annually. The rapid and continual growth in population impedes access to care, and the number of uninsured patients is growing.

The state Division of Health Services houses the Health Professions Resources Center (HPRC), which maintains databases used to expand and develop the number of federally qualified health centers, track 29 health professions, compute trend analyses, compute provider-to-population ratios, and prepare workforce studies. The health professions licensing boards supply a proportion of the data which is also available on-line. Information is disseminated to the state legislature, the Office of Health Disparities, and to any individual/group requesting the information. The HPRC releases a biennial state health plan with five-year workforce recommendations used to project needs for medical schools, the Texas Medical Association, and the state legislature.

For the shortage designation process there is technical assistance training for individual communities to access this information, provide updates, and to use it for their own designation purposes. A recruitment and retention group meets every other month – a joint effort with the Central Texas AHEC, Primary Care Office, Office of Rural Health and the Primary Care Association. HPSA designations are used for state loan repayment.

State loan repayment is available for physicians and dentists: \$9,000 - \$10,000/year with matching funds from the federal Bureau of Health Professions. Approximately 70 physicians and 30 dentists receive loan repayment. Loan repayment for physician assistants is available through the Office of Rural and Community Affairs (\$5,000/year with federal match).

The Texas Higher Education Coordinating Board presides over college curriculum, residency training and health professionals training programs. The Board also maintains a recruitment website in partnership with the AHEC, Primary Care Office, Office of Rural Health and the Primary Care Association. Other significant partners are the Texas Organization of Rural and Community Hospitals, and the Association of Rural Health Clinics, and the Texas Workforce Commission.